



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,546	01/21/2004	Shuuji Yano	042043	8625
38834	7590	05/17/2005	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			VU, PHU	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,546

Applicant(s)

YANO ET AL.

Examiner

Phu Vu

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 11 are rejected under 35 U.S.C. 103(a) as being obvious over Yano et. al. US Publication No. 2002/0034596 (Yano A) in view of Yano et. al US Publication No. 2002/0145804 (Yano B), and in further in view of Sekiguchi US Patent No. 6771327.

Yano teaches an optical film comprising:

an optical compensation (fig. 1 element 14) layer showing refractive index anisotropy satisfying a relationship $n_x^2 \approx n_y^2 > n_z^2$, when a direction where an in-plane reflective index gives a maximum is defined as X-axis, a direction perpendicular to X-axis as Y-axis, a thickness direction as Z-axis, and when refractive indexes in each axial direction are defined as n_x^2 , n_y^2 and n_z^2 (see [0023]);

Yano fails to teach on one side of the base material film in which reach of the refractive index differences represented with $|n_x - n_y|$, $|n_x - n_z|$ and $|n_y - n_z|$ has values of 0.0006 or less, respectively, with a direction perpendicular to X-axis as Y-axis, a thickness direction of the film as Z-axis, and when refractive indexes in each axial direction.

However Yano (B), teaches a optical film with an isotropic material ([0021]). Isotropic materials have an index of refraction independent of the direction thus n_x , n_y , and n_z are considered equal. Therefore $|n_x - n_y|$, $|n_y - n_z|$, and $|n_x - n_z|$ would all be equal to zero.

Sekiguchi teaches an isotropic substrate to eliminate distortion and retardation in the substrate (see column 28 lines 17-28)

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art use an isotropic base which has $|n_x - n_y|$, $|n_y - n_z|$ and $|n_x - n_z|$ all zero (less than .0006) to provide zero retardation and reduce distortion.

Regarding claim 2, the primary reference teaches the optical compensation layer preferably 10 micrometers or less (see [0020]).

Regarding claim 3, the primary reference teaches optical compensation layer is formed of an organic material ([0021] cholesteric liquid crystal polymer).

Regarding claim 4, the primary reference teaches the optical compensation layer is a cholesteric liquid crystal layer ([0021]).

Regarding claim 5, the claim mirrors claim 1 in method format, and does not introduce any new steps which would not be obvious by the device of claim 1. A step of orienting the optical compensation layer is also claimed however merely placement of the optical compensation layer in the device can be considered orientation, therefore this limitation is also met by the device of claim 1. Therefore the method is obvious over the device of claim 1.

Regarding claim 6, the primary reference teaches the optical compensation layer preferably 10 micrometers or less ([0020]).

Regarding claim 7, the primary reference teaches optical compensation layer is formed of an organic material ([0021] cholesteric liquid crystal polymer).

Regarding claim 8, the primary reference teaches the optical compensation layer is a cholesteric liquid crystal layer.

Regarding claim 9, the primary reference teaches at least one layer (fig. 1 element 2) of the optical element further laminated onto the optical film according to claim 1.

Regarding claim 11, the reference teaches a display that uses the optical film (see fig. 1).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et. al. US Publication No. 2002/0034596 (Yano A), in view of Yano et. al US Publication No. 2002/0145804 (Yano B), Sekiguchi US Patent No. 6771327 and Yoshimi et. al. Japanese Publication No. 2001-042127.

Yano and Sekiguchi teach all the limitations of claim 10 except the other element is a polarizer laminated on a base material film side. Yano A, Yano B, nor Sekiguchi teach a polarizer however, this is not located on the base material film side. Yoshimi teaches a polarizer on the base material side (opposite the retarder side which is element 1 in fig 1) to provide protection to the polarizer (see [0028] of machine translation). Therefore, at the time of the invention, it would have been obvious to one

Art Unit: 2871

of ordinary skill in the art to provide the polarizer on the base material side to provide additional protection to the polarizer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562.

The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu
Examiner
AU 2871



DUNG T. NGUYEN
PRIMARY EXAMINER